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ABSTRACT BOOK

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Fabrication and Characterization of Losartan Potassium Loaded Algino-Okra Gum Microparticulate System

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Abstract: The aim of my present study is to design and fabricate Losartan Potassium loaded Algino-okra gum microspheres. Mucilage of okra was isolated from fresh ladies finger. Ionic gelation method was selected to prepare the microsphere and the concentration of polymers was varied and examined the effect of polymer concentration on particle size, entrapment efficiency of drug and release of drug. It was revealed from the result that when concentration of polymer increases particle size and drug entrapment efficiency gradually increasing. *In vitro* drug release study formulation F5 showed the best drug release among all the microsphere formulations and was chosen as an optimized drug loaded algino-okra gum containing microsphere formulation for further studies. Scanning Electron Microscopy study stated that prepared microspheres were discrete and spherical in shape including rough outer surface. Losartan potassium was present in a stable form because no interaction was seen between drug and polymers and in the optimized formulation (F5), in differential scanning colorimetric analysis. X-Ray Diffraction study represented that in the optimized algino-okra gum microspheres, the drug molecules were present as an amorphous form or dispersed at molecular level in the prepared matrix system. So, it was concluded from the above research work that okra (*Abelmoschus esculentus*) gum can be utilized as a polymer and algino-okra gum polymeric combination was able to sustain the drug release for long time.

Keywords: Microspheres, Losartan Potassium, Algino-Okra Gum, Sustained drug delivery.

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